

BookletChart™

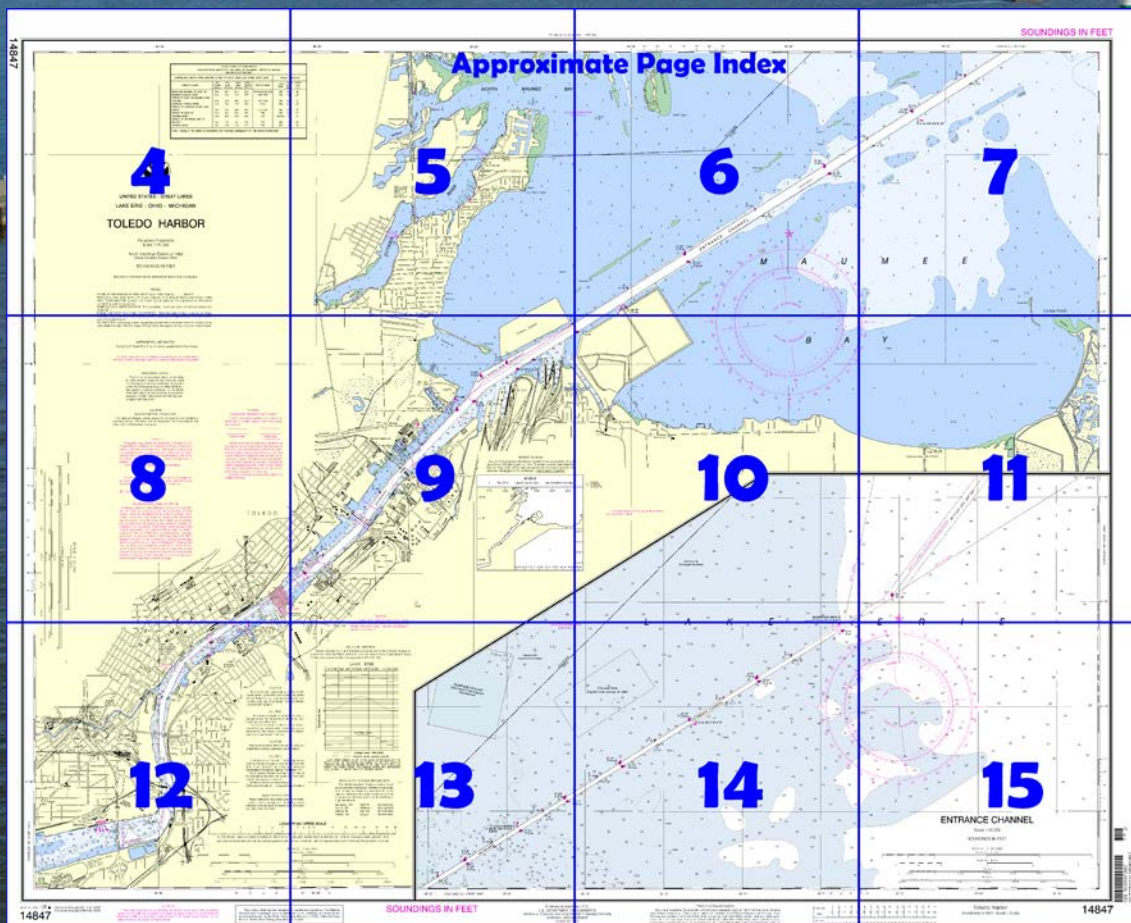
Toledo Harbor NOAA Chart 14847



A reduced-scale NOAA nautical chart for small boaters
When possible, use the full-size NOAA chart for navigation.



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™ ?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=14847>



(Selected Excerpts from Coast Pilot)

Detroit River Light (42°00.0'N., 83°08.5'W.), 55 feet above the water, is shown from a white conical tower, upper part black, on a hexagonal pier in the entrance to the Detroit River E of Pointe Mouillee. A fog signal and racon are at the light.

The **Detroit River** flows S from Lake St. Clair and empties into the NW end of Lake Erie.

East Outer Channel and West Outer

Channel, dredged and well marked, lead northward through the shallows at the upper end of Lake Erie to the mouth of the Detroit River.

Immediately N of Detroit River Light, the channels merge to form lower Livingstone Channel. In June 1999, East Outer Channel had a controlling depth of 24 feet (28 feet at midchannel). In 1987, West Outer Channel had a controlling depth of 16 feet for a midwidth of 700 feet.

The channel is well marked with lights and buoys. **Ballards Reef Channel Light 77D** (42°08.5'N., 83°07.5'W.) marks the W side of the downbound turn into the entrance to Livingstone Channel at its junction with Ballards Reef Channel. Because of the strong E set of the current at the junction of Livingstone and Ballards Reef Channels, mariners are advised to favor the W side, if draft permits.

Bois Blanc Island, Ont., popularly known as Bob-Lo Island, is in the lower part of the Detroit River, close to the Canadian mainland and separated from it by Amherstburg Channel. The island is a large amusement park. A marina on the W side of the island has water and electricity. Ferries connect the island with Amherstburg, Ont., and Detroit, Mich.

W of the lower end of the revetments in Livingstone Channel, a small-craft channel marked by buoys leads from the open part of the lower Detroit River between **Sugar Island** and **Meso Island**, along the Grosse Ile shore, and thence W of **Stony Island**. In the narrow part of this channel between Stony Island and Grosse Ile, a line of submerged bridge abutments, with least depths of ½ foot, crosses the channel, and submerged cables follow the same path just to the S and N of the abutments. A buoy marks the W side of the westernmost abutment, and in 1977, the best water was inside the buoy within 150 to 200 feet of the Grosse Ile shore. The W abutment is about 280 feet from shore.

of **Celeron Island** and connects with Trenton Channel at Gibraltar. The least depth in this channel is about 8 feet.

Fighting Island Channel extends from the upper end of Ballards Reef Channel, about 2 miles below the head of Grosse Ile, along the W side of Fighting Island to the natural deep water N of Fighting Island. A Federal project provides for a depth of 28.5 feet in Fighting Island Channel. (See Notice to Mariners and latest edition of charts for controlling depths.)

Fighting Island, Ont., on the E side of Fighting Island Channel off the Ontario mainland, is about 4 miles long and about 0.5 mile wide. The entire island is either marsh or waste bed fill from various concerns that pump manufacturing residue to the island as waste. Low bluffs are on the Water level information for the Gibraltar area may be obtained by contacting Detroit Coast Guard Group on VHF-FM channel 16. The same information is given at the beginning of the scheduled radio broadcast notice to mariners.

Because of current effects, mariners are advised to exercise caution when turning from Hackett Reach into Amherstburg Reach. Canadian regulations specify a **speed limit** of 10 knots in Livingstone Channel for vessels of 500 gross tons and over.

Caution.—Extra care is necessary when anchoring in Amherstburg Channel between its upper end and the south end of Bois Blanc Island; the current may cause an anchor to drag and overturn rocks which then become obstructions.

A submerged water intake north of the front structure of the Fort Malden range extends 300 feet (91.4 m) into the river.

Regulations.—A **speed limit** of 4 mph is enforced in River Rouge and Short Cut Canal 21. (See **33 CFR 162.130 through 162.140**, chapter 2, for navigation regulations.)

Detroit is a **customs port of entry**.

Quarantine is enforced in accordance with the regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.)

U.S. Coast Guard Rescue Coordination Center **24 hour Regional Contact for Emergencies**

RCC Cleveland

Commander

9th CG District

Cleveland, OH

(216) 902-6117

Navigation Managers Area of Responsibility



NOAA's navigation managers serve as ambassadors to the maritime community.

They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit nauticalcharts.noaa.gov/service/navmanagers

To make suggestions or ask questions online, go to nauticalcharts.noaa.gov/inquiry.

To report a chart discrepancy, please use ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx.

Lateral System As Seen Entering From Seaward

on navigable waters except Western Rivers



For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area.

These volumes are available online at <http://www.navcen.uscg.gov>

14847

83° 32'



UNITED STATES - GREAT LAKES
LAKE ERIE - OHIO - MICHIGAN

TOLEDO HARBOR

Polyconic Projection
Scale 1:20,000

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET

Additional information can be obtained at nauticalcharts.noaa.gov.

NOTES

PLANE OF REFERENCE OF THIS CHART (Low Water Datum) 569.2 ft.
Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985)
AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.
SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviations see Chart No. 1.
BRIDGE AND OVERHEAD CABLE CLEARANCES. When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.
AUTHORITIES. Hydrography and topography by the National Ocean Service, Coast Survey with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.185" northward and 0.249" eastward to agree with this chart.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 6 for important supplemental information.

CAUTION

BASCULE BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot 6 for details.

(P) Pump-out facilities

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the District Engineer, Corps of Engineers in Buffalo, New York.

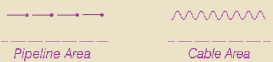
Refer to charted regulation section numbers.

Sailing courses and limits indicated in magenta are recommended by the Lake Carriers Association and the Canadian Shipowners Association.

CAUTION

SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:



Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

NOTE Z

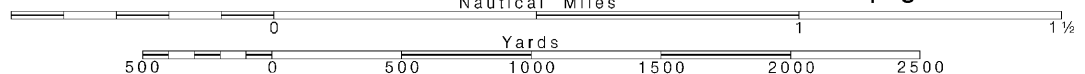
NO-DISCHARGE ZONE, 40 CFR 140
Michigan waters of Lakes Michigan, Huron, Superior, Erie

Joins page 8

Printed at reduced scale.

SCALE 1:20,000
Nautical Miles

See Note on page 5.



Note: Chart grid lines are aligned with true north.

4

83° 30'

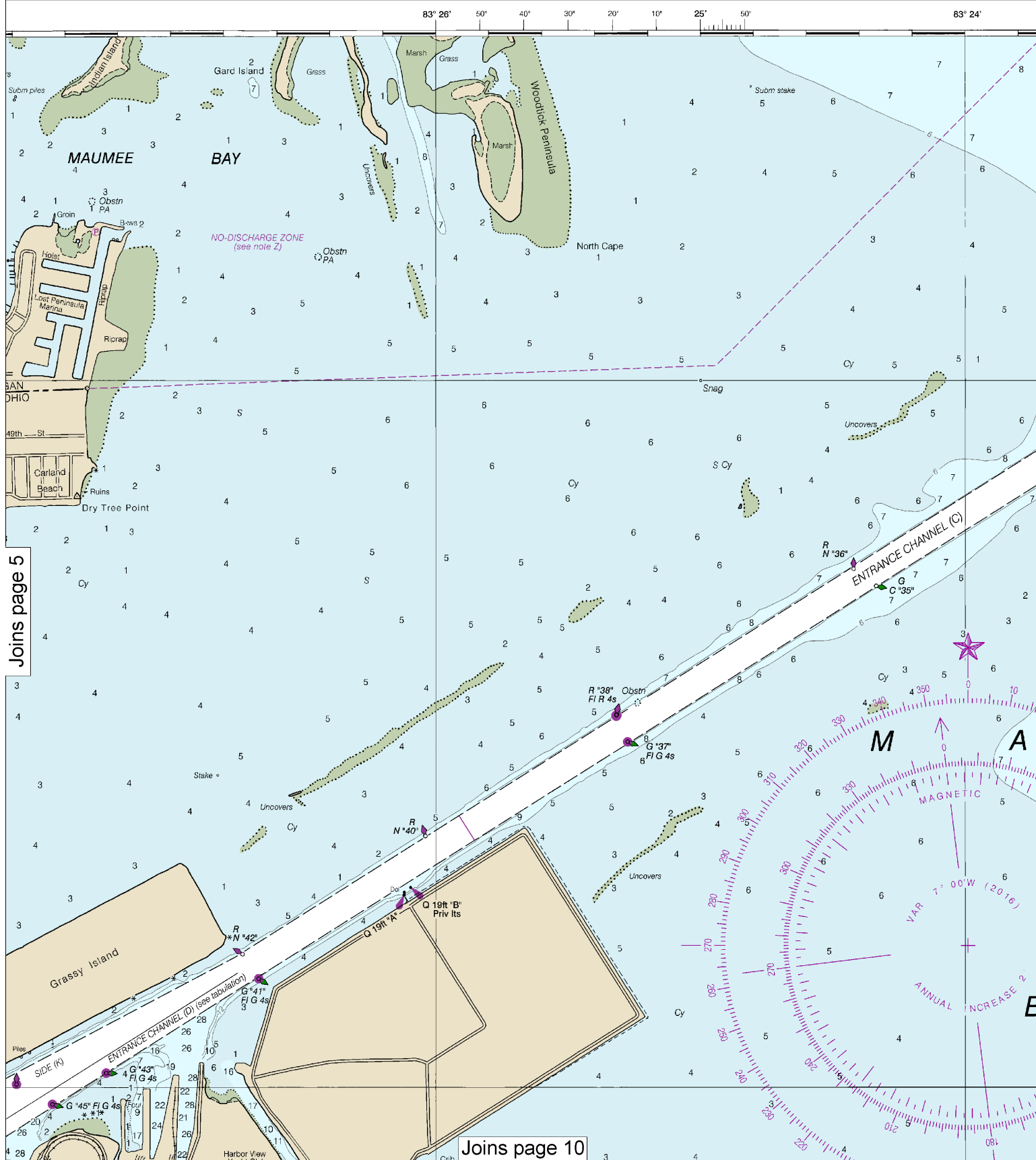
83° 28'



Joins page 6

Joins page 9

This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:26666. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.

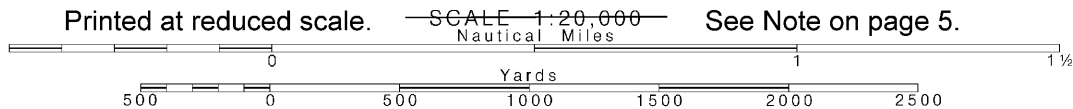


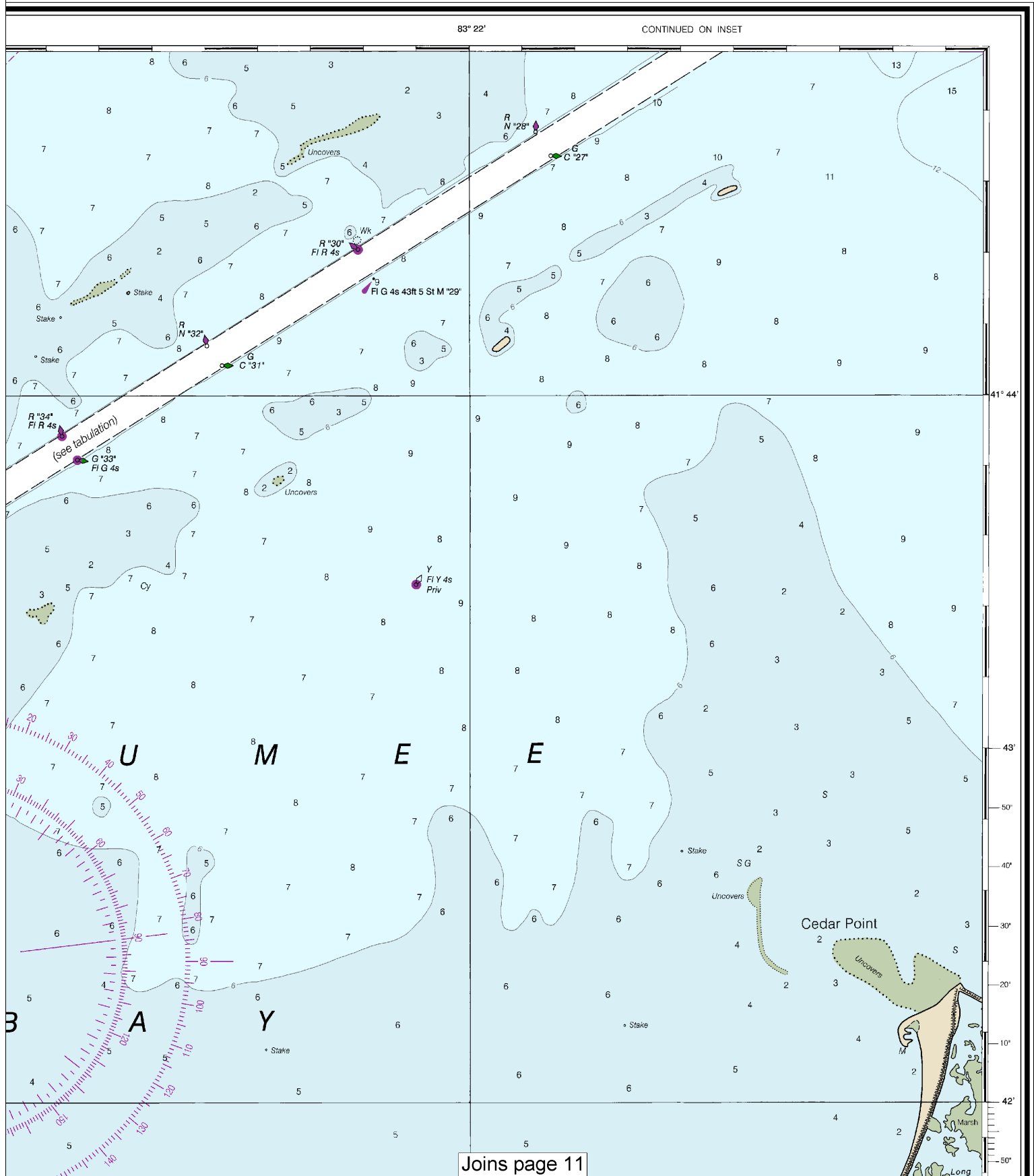
Joins page 5

Joins page 10

6

Note: Chart grid lines are aligned with true north.





Joins page 4

Obtained at the Office of the Com-
District in Cleveland, Ohio or at
the Office of the District Engineer, Corps of Engineers in
Buffalo, New York.
Refer to charted regulation section numbers.

Sailing courses and limits indicated in magenta are
recommended by the Lake Carriers Association and the
Canadian Shipowners Association.

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pipelines and cables may exist, and when
anchoring, dragging, or trawling.
Covered wells may be marked by lighted or
unlighted buoys.

CAUTION
BAScule BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or
vertical position, unlimited vertical clearance is not available for the
entire charted horizontal clearance.

NOTE Z

NO-DISCHARGE ZONE, 40 CFR 140

Michigan waters of Lakes Michigan, Huron, Superior, Erie
and St. Clair, all waterways connected thereto, and all
inland lakes are designated as a No-Discharge Zone
(NDZ). Under the Clean Water Act, Section 312, all vessels
operating within a No-Discharge Zone (NDZ) are completely
prohibited from discharging any sewage, treated or
untreated, into the waters. Commercial vessel sewage shall
include graywater. All vessels with an installed marine
sanitation device (MSD) that are navigating, moored,
anchored, or docked within a NDZ must have the MSD
disabled to prevent the overboard discharge of sewage
(treated or untreated) or install a holding tank. Regulations
for the NDZ are contained in the U.S. Coast Pilot.
Additional information concerning the regulations and
requirements may be obtained from the Environmental
Protection Agency (EPA) web site: http://www.epa.gov/owow/oceans/regulatory/vessel_sewage/.

TOLEDO HARBOR AND MAUMEE RIVER CHANNEL DEPTHS									
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JAN 2014 AND SURVEYS TO NOV 2013									
CONTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD)						PROJECT DIMENSIONS			
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (MILES)	DEPTH LWD (FEET)	
TOLEDO HARBOR									
(A) ENTRANCE CHANNEL	25.8	28.0	28.0	25.1	11-13	500	4(0)	28	
(B) ENTRANCE CHANNEL	25.0	25.5	26.4	24.4	9-13	500	5	28	
(C) ENTRANCE CHANNEL	23.0	24.0	22.4	15.2	7-13	500	5	28	
(D) ENTRANCE CHANNEL	24.5	26.5	26.5	26.0	7-13	500-950	2(0)	28	
(K) WIDENING WEST SIDE (c)	N/A	N/A	N/A	N/A	N/A	0-480	7200	28	
NAME OF CHANNEL	LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (FEET)	DEPTH LWD (FEET)		
MAUMEE RIVER									
(E) THENCE TO LOWER TURNING BASIN	10.7	15.1	4.9	8-13	400-100	14000	27		
(F) LOWER TURNING BASIN		8.2		7-13		350	13000	10	
(G) THENCE TO MIDDLE TURNING BASIN	11.5	13.0	13.7	7-13	200-400	18900	27		
(I) MIDDLE TURNING BASIN TO END OF PROJECT	5.9	7.8	10.4	7-13	200	2600	25*		
(J) UPPER TURNING BASIN		11.1		7-13	800	1100(b)	18		

a. LENGTH VARIES DEPENDING ON THE LOCATION OF THE 28 FOOT CONTOUR IN LAKE ERIE.

b. IRREGULARLY SHAPED.

c. (K) WIDENING WEST SIDE IS AN AREA OF THE ENTRANCE CHANNEL THAT IS A WIDENING OF THE WEST SIDE OF (D) ENTRANCE CHANNEL.

(*) NOT MAINTAINED.

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION.

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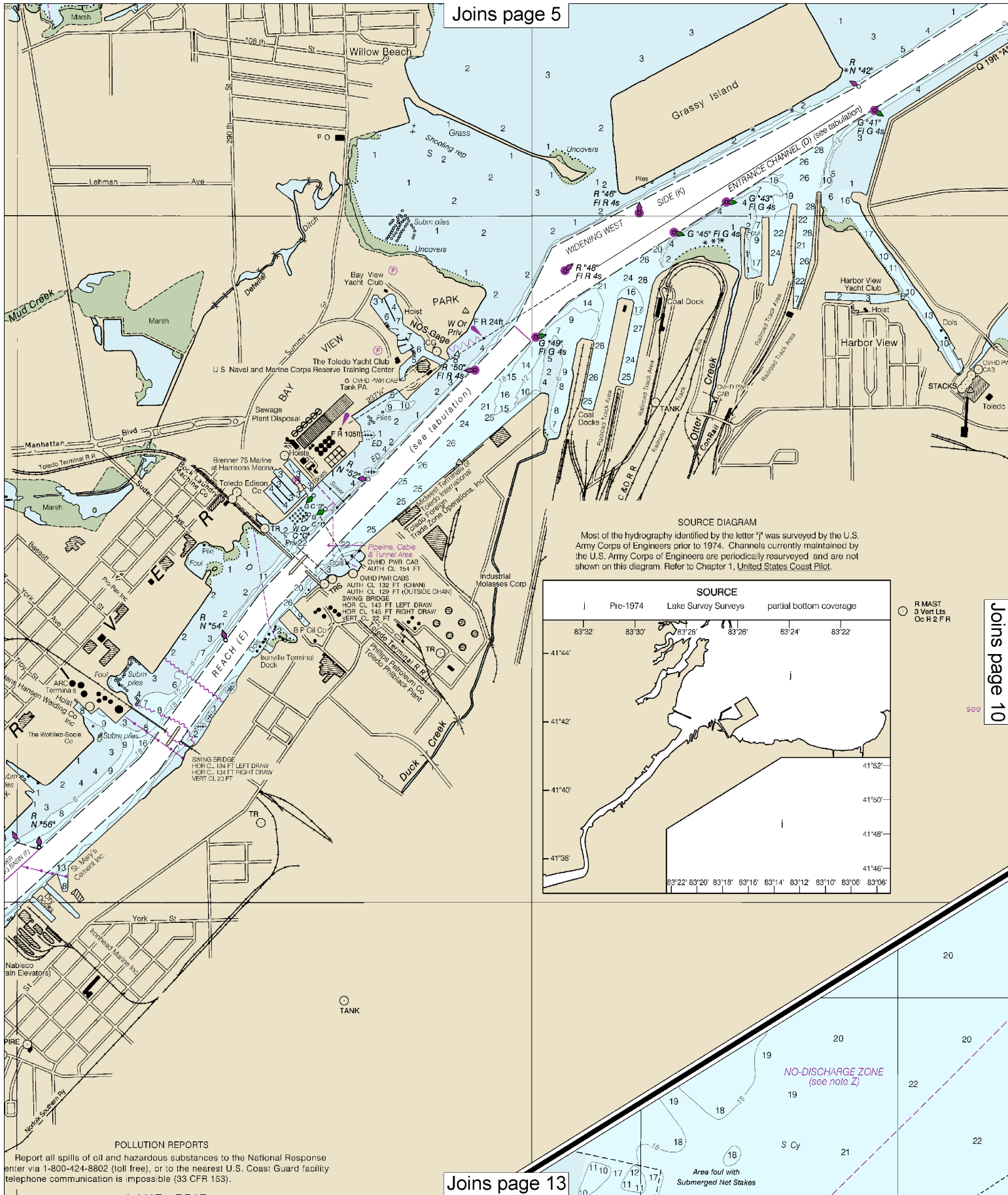
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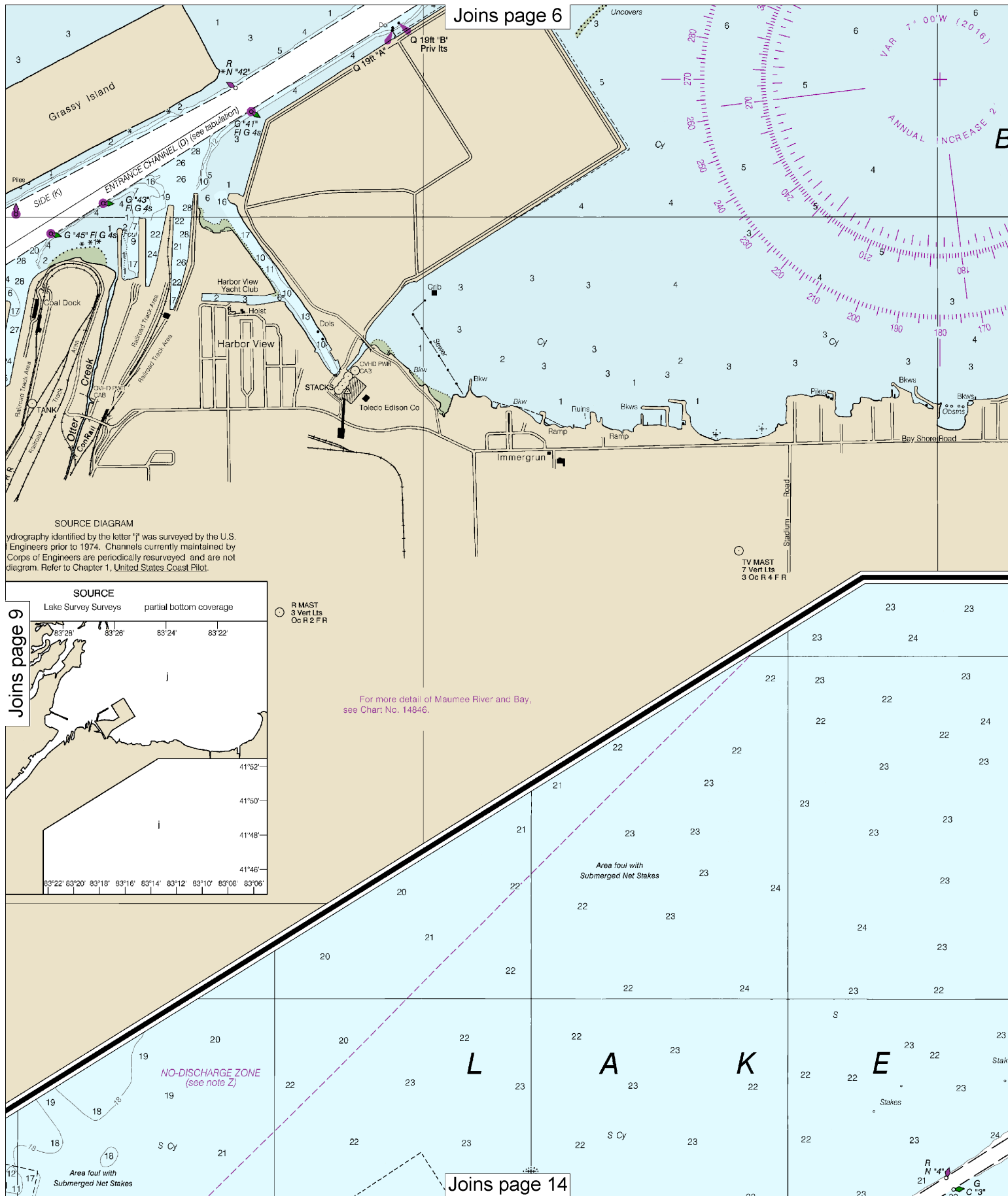
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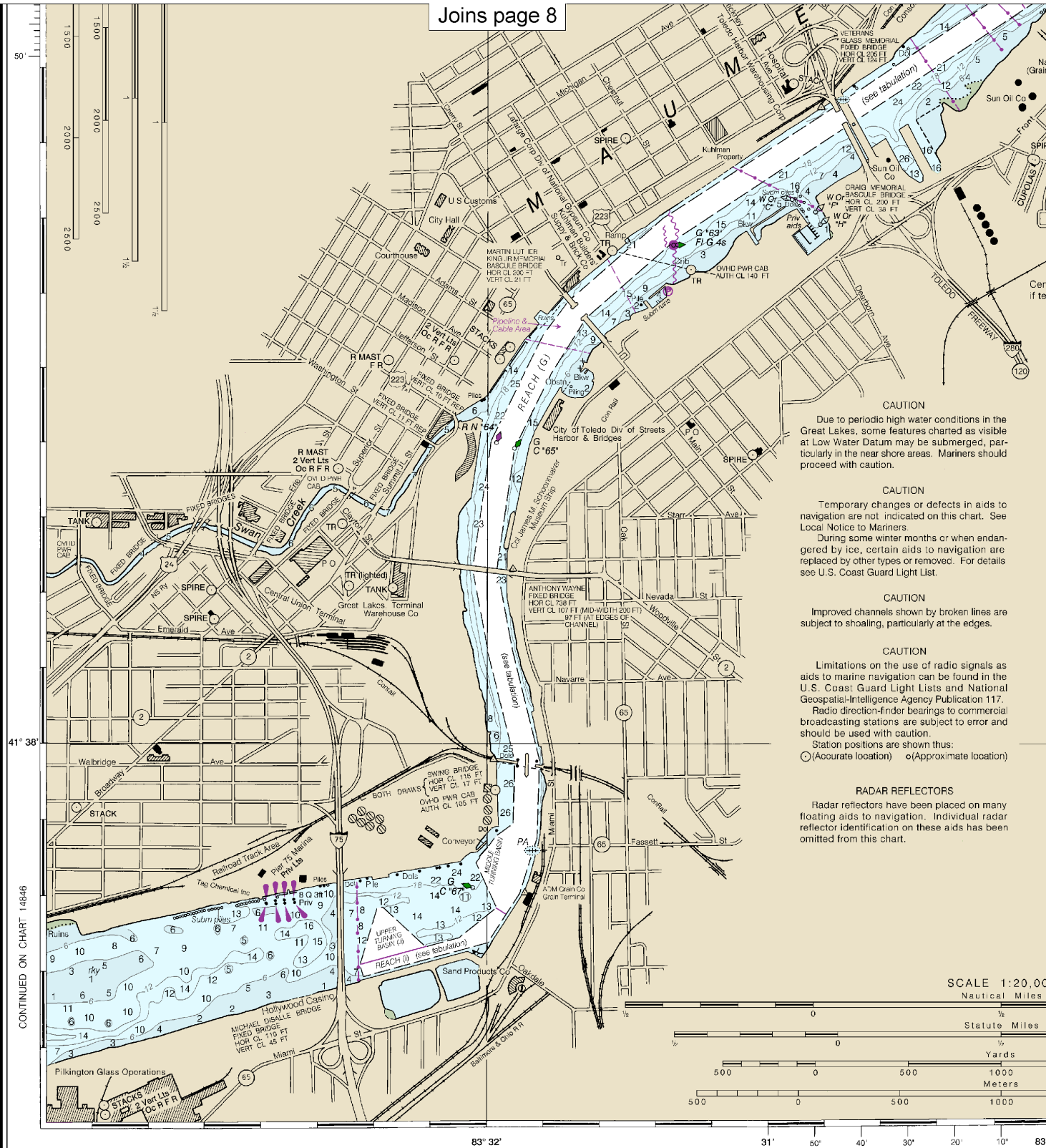
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14847

CAUTION
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

31st Ed., Feb. 2005. Last Correction: 11/14/2016. Cleared through:
LNM: 4816 (11/29/2016), NM: 4916 (12/3/2016), CHS: 1116 (11/25/2016)

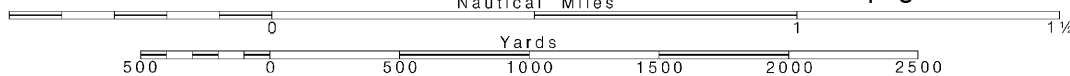
12

Note: Chart grid lines are aligned with true north.

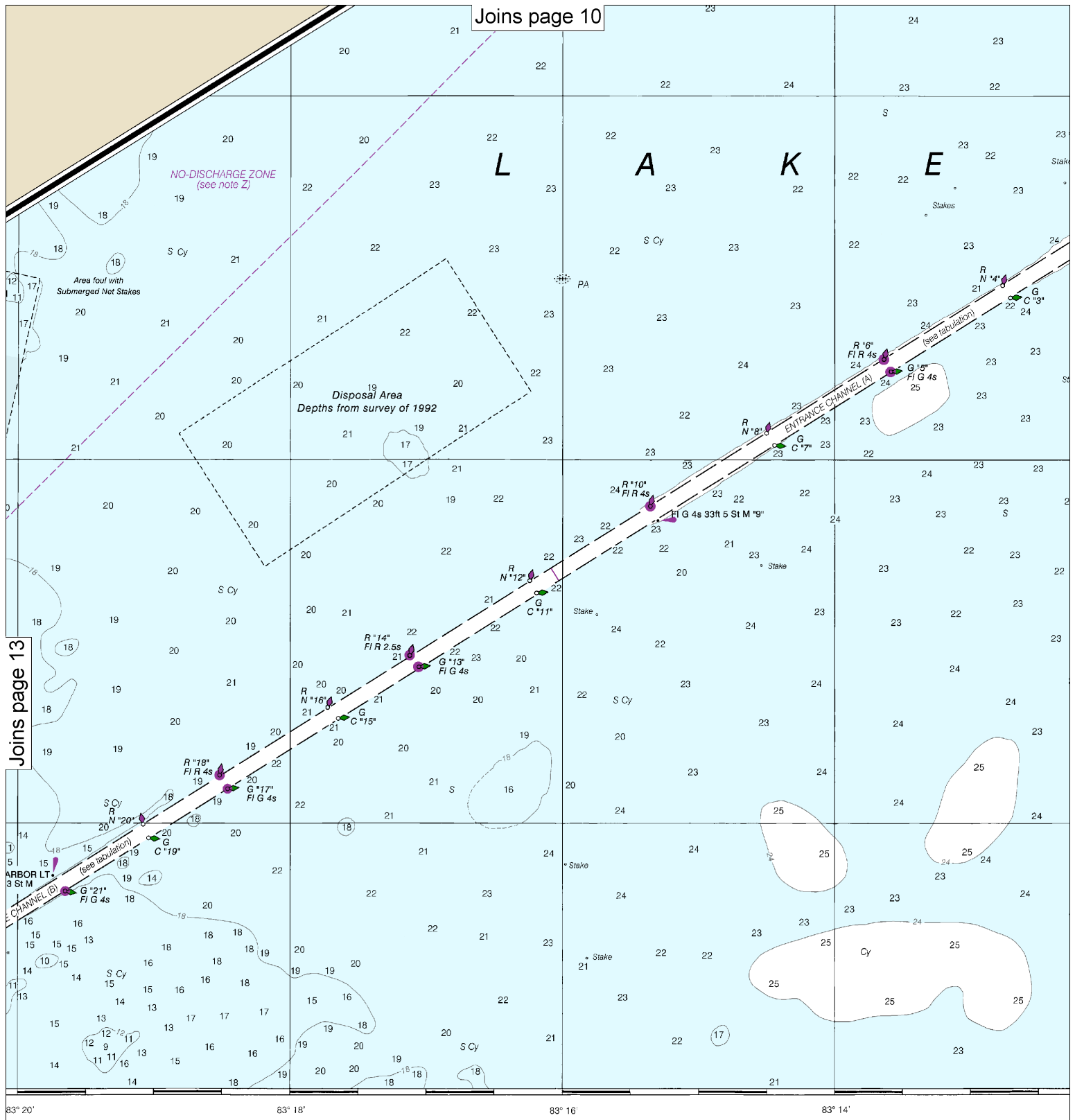
Printed at reduced scale.

SCALE 1:20,000
Nautical Miles

See Note on page 5.



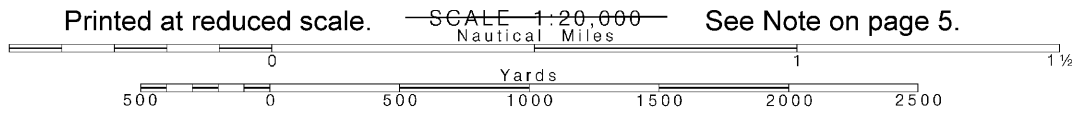
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U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

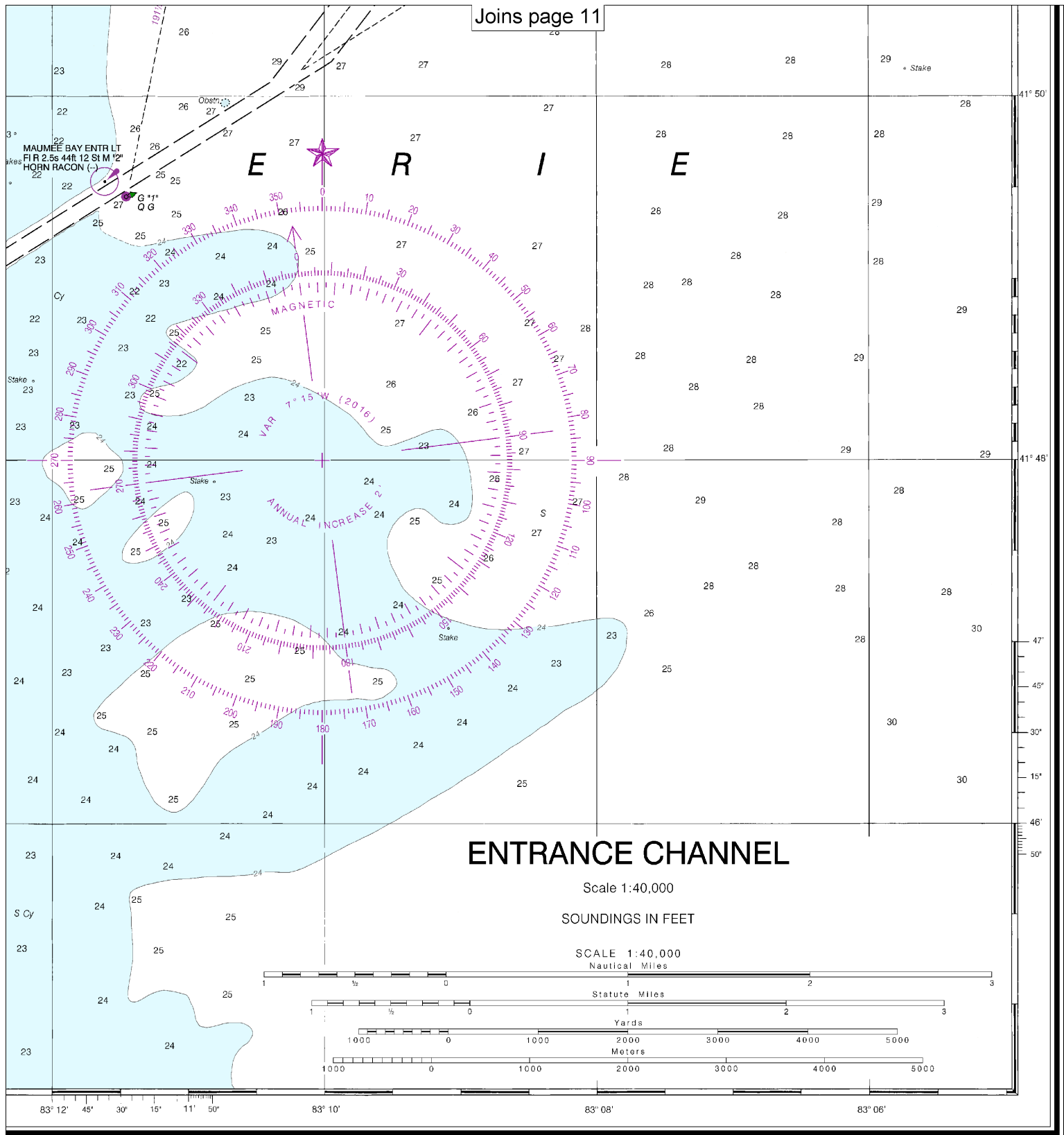


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 NATIONAL OCEAN SERVICE
 COAST SURVEY

14

Note: Chart grid lines are aligned with true north.





FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

Toledo Harbor
SOUNDINGS IN FEET - SCALE 1:20,000

14847



VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!

Quick References

Nautical chart related products and information	—	http://www.nauticalcharts.noaa.gov
Interactive chart catalog	—	http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml
Report a chart discrepancy	—	http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx
Chart and chart related inquiries and comments	—	http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs
Chart updates (LNM and NM corrections)	—	http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html
Coast Pilot online	—	http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm
Tides and Currents	—	http://tidesandcurrents.noaa.gov
Marine Forecasts	—	http://www.nws.noaa.gov/om/marine/home.htm
National Data Buoy Center	—	http://www.ndbc.noaa.gov/
NowCoast web portal for coastal conditions	—	http://www.nowcoast.noaa.gov/
National Weather Service	—	http://www.weather.gov/
National Hurricane Center	—	http://www.nhc.noaa.gov/
Pacific Tsunami Warning Center	—	http://ptwc.weather.gov/
Contact Us	—	http://www.nauticalcharts.noaa.gov/staff/contact.htm



— For the latest news from Coast Survey, follow **@NOAAcharts**



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.